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IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A composition comprising

(a) a NPY5 antagonist of formula I or II

and pharmaceutically acceptable salts and esters thereof, wherein Ar¹ is selected from the group consisting of:

- (1) aryl, and
- (2) heteroaryl,

wherein the aryl and heteroaryl groups are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) nitro,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) cyclo(lower)alkyl,
- (g) lower alkenyl,
- (h) lower alkoxy,
- (i) halo(lower)alkoxy,
- (j) lower alkylthio,
- (k) carboxyl,

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- (l) lower alkanoyl,
- (m) lower alkoxycarbonyl,
- (n) lower alkylene optionally substituted with oxo, and
- (o) $-Q-Ar^2$;

Ar² is selected from the group consisting of

- (1) aryl, and
- (2) heteroaryl,

wherein aryl and heteroaryl are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) cyano,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) hydroxy,
- (g) lower alkoxy,
- (h) halo(lower)alkoxy,
- (i) lower alkylamino,
- (j) di-lower alkylamino,
- (k) lower alkanoyl, and
- (l) aryl;

n is 0 or 1;

Q is selected from the group consisting of a single bond or carbonyl;

T, U, V and W are each independently selected from the group consisting of

- (1) nitrogen, and
- (2) methine.

wherein the methine group is unsubstituted or optionally substituted with a substituent selected from the group consisting of

- (a) halogen,
- (b) lower alkyl,
- (c) hydroxy, and
- (d) lower alkoxy, and

wherein at least two of T, U, V, and W are methine;

X is selected from the group consisting of

- (1) nitrogen, and
- (2) methine; and

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Y is selected from the group consisting of

- (1) imino, unsubstituted or optionally substituted with lower alkyl, and
- (2) oxygen; and
- (b) an antiobesity agent selected from the group consisting of:
 - (1) 5HT transporter inhibitor;
 - (2) NE transporter inhibitor;
 - (3) CB-1 antagonist/inverse agonist;
 - (4) Ghrelin antagonist;
 - (5) H3 antagonist/inverse agonist;
 - (6) MCH1R antagonist;
 - (7) MCH2R agonist/antagonist;
 - (8) NPY1 antagonist;
 - (9) leptin;
 - (10) leptin derivatives;
 - (11) opioid antagonist;
 - (12) orexin antagonist;
 - (13) BRS3 agonist;
 - (14) CCK-A agonist;
 - (15) CNTF;
 - (16) CNTF derivatives;
 - (17) GHS agonist;
 - (18) 5HT2C agonist;
 - (19) monoamine reuptake inhibitor;
 - (20) UCP-1, 2, and 3 activator;
 - (21) β3 agonist;
 - (22) thyroid hormone β agonist;
 - (23) PDE inhibitor;
 - (24) FAS inhibitor;
 - (25) DGAT1 inhibitor;
 - (26) DGAT2 inhibitor;
 - (27) ACC2 inhibitor;
 - (28) glucocorticoid antagonist;
 - (29) acyl-estrogens;
 - (30) lipase inhibitor;

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- (31) fatty acid transporter inhibitor;
- (32) dicarboxylate transporter inhibitor;
- (33) glucose transporter inhibitor;
- (34) serotonin reuptake inhibitors;
- (35) metformin; and
- (36) topiramate;

and pharmaceutically acceptable salts and esters thereof.

- 2. (original) The composition of Claim 1 wherein the anti-obesity agent is selected from the group consisting of:
 - (1) acyl-estrogen;
 - (2) CB-1 antagonist/inverse agonist;
 - (3) opioid antagonist;
 - (4) monoamine reuptake inhibitor;
 - (5) lipase inhibitor;
 - (6) leptin;
 - (7) CNTF;
 - (8) CNTF derivatives;
 - (9) metformin; and
 - (10) topiramate;

and pharmaceutically acceptable salts and esters thereof.

- 3. (currently amended) The composition of Claim 2 wherein the acyl-estrogen is selected from oleoyl-estrone, the monoamine reuptake inhibitor is selected from sibutramine, the CNTF derivative is selected from axokine, the lipase inhibitor is selected from orlistat, the CB-1 antagonist/inverse agonist is selected from rimonabant, and the opioid antagonist is selected from nalmefene, and the pharmaceutically acceptable salts thereof.
 - 4. (cancelled)
 - 5. (cancelled)
 - 6. (cancelled)

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7. (cancelled)

- 8. (cancelled)
- 9. (cancelled)
- 10. (cancelled)
- 11. (cancelled)

12. (original) The composition of Claim 1 wherein the NPY5 antagonist is selected from the group consisting of a compound of formula I

and pharmaceutically acceptable salts and esters thereof, wherein Ar^1 is selected from the group consisting of:

- (1) aryl, and
- (2) heteroaryl,

wherein the aryl and heteroaryl groups are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) nitro,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) cyclo(lower)alkyl,
- (g) lower alkenyl,
- (h) lower alkoxy,
- (i) halo(lower)alkoxy,
- (j) lower alkylthio,

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- (k) carboxyl,
- (l) lower alkanoyl,
- (m) lower alkoxycarbonyl,
- (n) lower alkylene optionally substituted with oxo, and
- (o) $-Q-Ar^2$;

Ar² is selected from the group consisting of

- (1) aryl, and
- (2) heteroaryl,

wherein aryl and heteroaryl are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) cyano,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) hydroxy,
- (g) lower alkoxy,
- (h) halo(lower)alkoxy,
- (i) lower alkylamino,
- (j) di-lower alkylamino,
- (k) lower alkanoyl, and
- (l) aryl;

n is 0 or 1;

Q is selected from the group consisting of a single bond or carbonyl;

T, U, V and W are each independently selected from the group consisting of

- (1) nitrogen, and
- (2) methine,

wherein the methine group is unsubstituted or optionally substituted with a substituent selected from the group consisting of

- (a) halogen,
- (b) lower alkyl,
- (c) hydroxy, and
- (d) lower alkoxy; and

-wherein at least two of T, U, V, and W are methine;

X is selected from the group consisting of

(1) nitrogen, and

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(2) methine; and Y is selected from the group consisting of

- (1) imino, unsubstituted or optionally substituted with lower alkyl, and
- (2) oxygen.

13. (cancelled)

- 14. (currently amended) The composition of Claim 13 12 wherein the NPY5 antagonist is selected from the group consisting of
- (1) 3-oxo-N-(5-phenyl-2-pyrazinyl)-spiro[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (2) 3-oxo-N-(7-trifluoromethylpyrido[3,2-b]pyridin-2-yl)spiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (3) N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (4) trans-3'-oxo-N-(5-phenyl-2-pyrimidinyl)spiro[cyclohexane-1,1'(3'H)-isobenzofuran]-4-carboxamide;
- (5) trans-3'-oxo-N-[1-(3-quinolyl)-4-imidazolyl]spiro[cyclohexane-1,1'(3'H)-isobenzofuran]-4-carboxamide;
- (6) trans-3-oxo-N-(5-phenyl-2-pyrazinyl)spiro[4-azaiso-benzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (7) trans-N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (8) trans-N-[5-(2-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (9) trans-N-[1-(3,5-difluorophenyl)-4-imidazolyl]-3-oxospiro[7-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (10) trans-3-oxo-N-(1-phenyl-4-pyrazolyl)spiro[4-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (11) trans-N-[1-(2-fluorophenyl)-3-pyrazolyl]-3-oxospiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (12) trans-3-oxo-N-(1-phenyl-3-pyrazolyl)spiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide; and
- (13) trans-3-oxo-N-(2-phenyl-1,2,3-triazol-4-yl)spiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide; and pharmaceutically acceptable salts and esters thereof.

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15. (original) A composition comprising

(a) a NPY5 antagonist of formula I or II

and pharmaceutically acceptable salts and esters thereof, wherein Ar^1 is selected from the group consisting of:

- (1) aryl, and
- (2) heteroaryl,

wherein the aryl and heteroaryl groups are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) nitro,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) cyclo(lower)alkyl,
- (g) lower alkenyl,
- (h) lower alkoxy,
- (i) halo(lower)alkoxy,
- (j) lower alkylthio,
- (k) carboxyl,
- (l) lower alkanoyl,
- (m) lower alkoxycarbonyl,
- (n) lower alkylene optionally substituted with oxo, and
- (o) $-Q-Ar^2$;

Ar² is selected from the group consisting of

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- (1) aryl, and
- (2) heteroaryl,

wherein aryl and heteroaryl are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- halogen, (a)
- (b) cyano,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) hydroxy,
- (g) lower alkoxy,
- (h) halo(lower)alkoxy,
- (i) lower alkylamino,
- (j) di-lower alkylamino,
- (k) lower alkanoyl, and
- (1) aryl;

n is 0 or 1;

Q is selected from the group consisting of a single bond or carbonyl;

T, U, V and W are each independently selected from the group consisting of

- (1) nitrogen, and
- (2) methine,

wherein the methine group is unsubstituted or optionally substituted with a substituent selected from the group consisting of

- (a) halogen,
- (b) lower alkyl,
- (c) hydroxy, and
- lower alkoxy, and

wherein at least two of T, U, V, and W are methine;

X is selected from the group consisting of

- (1) nitrogen, and
- (2) methine; and

Y is selected from the group consisting of

- imino, unsubstituted or optionally substituted with lower alkyl, and (1)
- (2) oxygen; and
- (b) an anti-obesity agent selected from the group consisting of:
 - (1) aminorex;

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- (2) amphechloral;
- (3) amphetamine;
- (4) benzphetamine;
- (5) chlorphentermine;
- (6) clobenzorex;
- (7) cloforex;
- (8) clominorex;
- (9) clortermine;
- (10) cyclexedrine;
- (11) dexfenfluramine;
- (12) dextroamphetamine;
- (13) diethylpropion;
- (14) diphemethoxidine,
- (15) N-ethylamphetamine;
- (16) fenbutrazate;
- (17) fenfluramine;
- (18) fenisorex;
- (19) fenproporex;
- (20) fludorex;
- (21) fluminorex;
- (22) furfurylmethylamphetamine;
- (23) levamfetamine;
- (24) levophacetoperane;
- (25) mazindol;
- (26) mefenorex;
- (27) metamfepramone;
- (28) methamphetamine;
- (29) norpseudoephedrine;
- (30) pentorex;
- (31) phendimetrazine;
- (32) phenmetrazine;
- (33) phentermine;
- (34) phenylpropanolamine; and
- (35) picilorex;

and pharmaceutically acceptable salts thereof.

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16. (original) A composition comprising

- (a) a NPY5 antagonist selected from the group consisting of:
- (1) 3-oxo-N-(5-phenyl-2-pyrazinyl)-spiro[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (2) 3-oxo-N-(7-trifluoromethylpyrido[3,2-b]pyridin-2-yl)spiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (3) N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (4) trans-3'-oxo-N-(5-phenyl-2-pyrimidinyl)spiro[cyclohexane-1,1'(3'H)-isobenzofuran]-4-carboxamide;
- (5) trans-3'-oxo-N-[1-(3-quinolyl)-4-imidazolyl]spiro[cyclohexane-1,1'(3'H)-isobenzofuran]-4-carboxamide;
- (6) trans-3-oxo-N-(5-phenyl-2-pyrazinyl)spiro[4-azaiso-benzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (7) trans-N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (8) trans-N-[5-(2-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (9) trans-N-[1-(3,5-difluorophenyl)-4-imidazolyl]-3-oxospiro[7-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (10) trans-3-oxo-N-(1-phenyl-4-pyrazolyl)spiro[4-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (12) trans-N-[1-(2-fluorophenyl)-3-pyrazolyl]-3-oxospiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (13) trans-3-oxo-N-(1-phenyl-3-pyrazolyl)spiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide; and
- (14) trans-3-oxo-N-(2-phenyl-1,2,3-triazol-4-yl)spiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;

and pharmaceutically acceptable salts and esters thereof; and

- (b) a Mc4r agonist selected from the group consisting of:
- (1) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chloro phenyl]-N-methylcarboxamide;
- (2) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluoro-phenyl]-N-methylcarboxamide;
- (3) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-methyl-phenyl]-N-methylcarboxamide;

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(4) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-phenyl]-N-methylcarboxamide;

- (5) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-4-methyl-phenyl]-N-methylcarboxamide;
- (6) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-4-fluoro-phenyl]-N-methylcarboxamide;
- (7) 4-[2-(2-azetidin-1-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (8) 4-[2-(2-azetidin-1-yl-1(R)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (9) 4-[2-(2-azetidin-1-yl-1,1-dimethyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (10) 4-[2-(2-azetidin-1-yl-1-cyclopropyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (11) 4-[2-(2-azetidin-1-yl-1,1-dimethyl-2-oxoethyl)-4-fluorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (12) 4-[2-(2-azetidin-1-yl-1-cyclopropyl-2-oxoethyl)-4-fluorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (13) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}acetamide;
- (14) N-{(1R)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}acetamide;
- (15) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]-1-methylethyl}acetamide;
- (16) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}acetamide;
- (17) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}cyclobutanecarboxamide;
- (18) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}propanamide;
- (19) N- $\{1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl\}$ piperidin-4-yl)-5-chlorophenyl]ethyl}-*N*-methylurea;
- (20) Methyl-2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]-2-methylpropanoate;

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- (21) $N-\{1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]-1-methylethyl}acetamide;
- (22) $N-\{1-[2-(1-\{[(3S,4R)-1-tert-buty]-4-(2,4-difluoro-phenyl)pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}-N-methylurea;
- $N-\{1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}cyclobutanecarboxamide;
- $N-\{1-[2-(1-\{[(3S,4R)-1-tert-buty]-4-(2,4-difluoro-phenyl)pyrrolidin-3-$ (24)yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}propanamide;
- $N-\{(1S)-1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-$ (25)yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}acetamide;
- $N-\{(1S)-1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]propyl}acetamide; and
- $N-\{(1S)-1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}pyrimidine-5-carboxamide; and pharmaceutically acceptable salts thereof.

17. (original) A composition comprising

- (a) a NPY5 antagonist selected from the group consisting of:
- (1) 3-oxo-N-(5-phenyl-2-pyrazinyl)-spiro[isobenzofuran-1(3H),4'-piperidine]-1'carboxamide;
- (2) 3-oxo-N-(7-trifluoromethylpyrido[3,2-b]pyridin-2-yl)spiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro-[isobenzofuran-1(3H),4'-(3) piperidine]-1'-carboxamide;
- trans-3'-oxo-N-(5-phenyl-2-pyrimidinyl)spiro[cyclohexane-1,1'(3'H)-(4) isobenzofuran]-4-carboxamide;
- (5) trans-3'-oxo-N-[1-(3-quinolyl)-4-imidazolyl]spiro[cyclohexane-1,1'(3'H)isobenzofuran]-4-carboxamide;
- trans-3-oxo-N-(5-phenyl-2-pyrazinyl)spiro[4-azaiso-benzofuran-1(3H),1'-(6) cyclohexane]-4'-carboxamide;
- (7) trans-N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- trans-N-[5-(2-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;

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- (9) trans-N-[1-(3,5-difluorophenyl)-4-imidazolyl]-3-oxospiro[7-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide:
- trans-3-oxo-N-(1-phenyl-4-pyrazolyl)spiro[4-azaisobenzofuran-1(3H),1'cyclohexane]-4'-carboxamide;
- trans-N-[1-(2-fluorophenyl)-3-pyrazolyl]-3-oxospiro[6-azaisobenzofuran-(11)1(3H),1'-cyclohexane]-4'-carboxamide;
- trans-3-oxo-N-(1-phenyl-3-pyrazolyl)spiro[6-azaisobenzofuran-1(3H),1'-(12)cyclohexane]-4'-carboxamide; and
- trans-3-oxo-N-(2-phenyl-1,2,3-triazol-4-yl)spiro[6-azaisobenzofuran-1(3H),1'-(13)cyclohexane]-4'-carboxamide; and pharmaceutically acceptable salts and esters thereof; and
- (b) a Mc4r agonist selected from the group consisting of:
- $N-\{(1S)-1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}acetamide,
- $N-\{(1S)-1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]propyl}acetamide,
- $N-\{(1S)-1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}acetamide,
- 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3yl]carbonyl}piperidin-4-yl)-5-chloro phenyl]-N-methylcarboxamide,
- $N-\{(1S)-1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3$ yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}pyrimidine-5-carboxamide, and
- $4-[2-(2-azetidin-1-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl-2-oxoethyl-4-chloropheny$ butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine, and pharmaceutically acceptable salts thereof.
- 18. (original) A composition according to Claim 1 further comprising a pharmaceutically acceptable carrier.
 - 19. (cancelled)
 - 20. (cancelled)
 - 21. (original) A method of preventing obesity in a subject at risk

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for obesity comprising administration to said subject

(a) a prophylactically effective amount of a NPY5 antagonist of Formula I or II:

and pharmaceutically acceptable salts and esters thereof, wherein Ar^1 is selected from the group consisting of:

- (1) aryl, and
- (2) heteroaryl,

wherein the aryl and heteroaryl groups are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) nitro,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) cyclo(lower)alkyl,
- (g) lower alkenyl,
- (h) lower alkoxy,
- (i) halo(lower)alkoxy,
- (j) lower alkylthio,
- (k) carboxyl,
- (l) lower alkanoyl,
- (m) lower alkoxycarbonyl,
- (n) lower alkylene optionally substituted with oxo, and
- (o) $-Q-Ar^2$;

 Ar^2 is selected from the group consisting of

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- (1) aryl, and
- (2) heteroaryl,

wherein aryl and heteroaryl are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) cyano,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) hydroxy,
- (g) lower alkoxy,
- (h) halo(lower)alkoxy,
- (i) lower alkylamino,
- (j) di-lower alkylamino,
- (k) lower alkanoyl, and
- (l) aryl;

n is 0 or 1:

Q is selected from the group consisting of a single bond or carbonyl;

T, U, V and W are each independently selected from the group consisting of

- (1) nitrogen, and
- (2) methine,

wherein the methine group is unsubstituted or optionally substituted with a substituent selected from the group consisting of

- (a) halogen,
- (b) lower alkyl,
- (c) hydroxy, and
- (d) lower alkoxy, and

wherein at least two of T, U, V, and W are methine;

X is selected from the group consisting of

- (1) nitrogen, and
- (2) methine; and

Y is selected from the group consisting of

- (1) imino, unsubstituted or optionally substituted with lower alkyl, and
- (2) oxygen; and
- (b) a prophylactically effective amount of an anti-obesity agent selected from the group consisting of:
 - (1) 5HT transporter inhibitor;

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- (2) NE transporter inhibitor;
- (3) CB-1 antagonist/inverse agonist;
- (4) Ghrelin antagonist;
- (5) H3 antagonist/inverse agonist;
- (6) MCH1R antagonist;
- (7) MCH2R agonist/antagonist;
- (8) NPY1 antagonist;
- (9) leptin;
- (10) leptin derivatives;
- (11) opioid antagonist;
- (12) orexin antagonist;
- (13) BRS3 agonist;
- (14) CCK-A agonist;
- (15) CNTF;
- (16) CNTF derivatives;
- (17) GHS agonist;
- (18) 5HT2C agonist;
- (19) monoamine reuptake inhibitor;
- (20) UCP-1, 2, and 3 activator;
- (21) β 3 agonist;
- (22) thyroid hormone β agonist;
- (23) PDE inhibitor;
- (24) FAS inhibitor;
- (25) DGAT1 inhibitor;
- (26) DGAT2 inhibitor;
- (27) ACC2 inhibitor;
- (28) glucocorticoid antagonist;
- (29) acyl-estrogens;
- (30) lipase inhibitor;
- (31) fatty acid transporter inhibitor;
- (32) dicarboxylate transporter inhibitor;
- (33) glucose transporter inhibitor;
- (34) serotonin reuptake inhibitors;
- (35) metformin; and

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(36) topiramate; and pharmaceutically acceptable salts and esters thereof.

22. (currently amended) \underline{A} The method of treating a subject having a disorder associated with excessive food intake comprising administration of

(a) a therapeutically effective amount of a NPY5 antagonist of Formula I or II:

and pharmaceutically acceptable salts and esters thereof, wherein Ar¹ is selected from the group consisting of:

- (1) aryl, and
- (2) heteroaryl, wherein the aryl and heteroaryl groups are unsubstituted or optionally substituted with a substituent selected from the group consisting of:
 - (a) halogen,
 - (b) nitro,
 - (c) lower alkyl,
 - (d) halo(lower)alkyl,
 - (e) hydroxy(lower)alkyl,
 - (f) cyclo(lower)alkyl,
 - (g) lower alkenyl,
 - (h) lower alkoxy,
 - (i) halo(lower)alkoxy,
 - (j) lower alkylthio,
 - (k) carboxyl,
 - (l) lower alkanoyl,

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- (m) lower alkoxycarbonyl,
- (n) lower alkylene optionally substituted with oxo, and
- (o) $-Q-Ar^2$;

Ar² is selected from the group consisting of

- (1) aryl, and
- (2) heteroaryl,

wherein aryl and heteroaryl are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) cyano,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) hydroxy,
- (g) lower alkoxy,
- (h) halo(lower)alkoxy,
- (i) lower alkylamino,
- (j) di-lower alkylamino,
- (k) lower alkanoyl, and
- (l) aryl;

n is 0 or 1;

Q is selected from the group consisting of a single bond or carbonyl;

T, U, V and W are each independently selected from the group consisting of

- (1) nitrogen, and
- (2) methine,

wherein the methine group is unsubstituted or optionally substituted with a substituent selected from the group consisting of

- (a) halogen,
- (b) lower alkyl,
- (c) hydroxy, and
- (d) lower alkoxy, and

wherein at least two of T, U, V, and W are methine;

X is selected from the group consisting of

- (1) nitrogen, and
- (2) methine; and

Y is selected from the group consisting of

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- (1) imino, unsubstituted or optionally substituted with lower alkyl, and
- (2) oxygen; and
- (b) a therapeutically effective amount of an anti-obesity agent selected from the group consisting of:
 - (1) 5HT transporter inhibitor;
 - (2) NE transporter inhibitor;
 - (3) CB-1 antagonist/inverse agonist;
 - (4) Ghrelin antagonist;
 - (5) H3 antagonist/inverse agonist;
 - (6) MCH1R antagonist;
 - (7) MCH2R agonist/antagonist;
 - (8) NPY1 antagonist;
 - (9) leptin;
 - (10) leptin derivatives;
 - (11) opioid antagonist;
 - (12) orexin antagonist;
 - (13) BRS3 agonist;
 - (14) CCK-A agonist;
 - (15) CNTF;
 - (16) CNTF derivatives;
 - (17) GHS agonist;
 - (18) 5HT2C agonist;
 - (19) monoamine reuptake inhibitor;
 - (20) UCP-1, 2, and 3 activator;
 - (21) β 3 agonist;
 - (22) thyroid hormone β agonist;
 - (23) PDE inhibitor;
 - (24) FAS inhibitor;
 - (25) DGAT1 inhibitor;
 - (26) DGAT2 inhibitor;
 - (27) ACC2 inhibitor;
 - (28) glucocorticoid antagonist;
 - (29) acyl-estrogens;
 - (30) lipase inhibitor;

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(31) fatty acid transporter inhibitor;

- (32) dicarboxylate transporter inhibitor;
- (33) glucose transporter inhibitor;
- (34) serotonin reuptake inhibitors;
- (35) metformin; and
- (36) topiramate;

and pharmaceutically acceptable salts and esters thereof; to a subject in need of such treatment.

- 23. (currently amended) The method according to Claim 22 wherein the disorder associated with excessive food intake is <u>selected from</u> obesity <u>and an obesity-related disorder</u>.
 - 24. (cancelled)
- 25. (currently amended) The method according to Claim 24 23 wherein the obesity-related disorder is selected from: overeating; bulimia; hypertension; diabetes, elevated plasma insulin concentrations; insulin resistance; dyslipidemia; hyperlipidemia; endometrial, breast, prostate and colon cancer; osteoarthritis; obstructive sleep apnea; cholelithiasis; gallstones; coronary heart disease; abnormal heart rhythms; heart arrythmias; myocardial infarction; polycystic ovarian disease; craniopharyngioma; the Prader-Willi Syndrome; Frohlich's syndrome; GH-deficient subjects; normal variant short stature; Turner's syndrome; and acute lymphoblastic leukemia.
- 26. (original) The method according to Claim 25 wherein the obesity-related disorder is diabetes.
 - 27. (cancelled)
 - 28. (cancelled)
 - 29. (cancelled)
 - 30. (cancelled)
 - 31. (cancelled)
 - 32. (cancelled)
 - 33. (cancelled)
 - 34. (original) A method of preventing obesity in a subject at risk

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for obesity comprising administration to said subject

(a) a prophylactically effective amount of a NPY5 antagonist selected from the group consisting of:

- (1) 3-oxo-N-(5-phenyl-2-pyrazinyl)-spiro[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (2) 3-oxo-N-(7-trifluoromethylpyrido[3,2-b]pyridin-2-yl)spiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (3) N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (4) trans-3'-oxo-N-(5-phenyl-2-pyrimidinyl)spiro[cyclohexane-1,1'(3'H)-isobenzofuran]-4-carboxamide;
- (5) trans-3'-oxo-N-[1-(3-quinolyl)-4-imidazolyl]spiro[cyclohexane-1,1'(3'H)-isobenzofuran]-4-carboxamide;
- (6) trans-3-oxo-N-(5-phenyl-2-pyrazinyl)spiro[4-azaiso-benzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (7) trans-N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (8) trans-N-[5-(2-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (9) trans-N-[1-(3,5-difluorophenyl)-4-imidazolyl]-3-oxospiro[7-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (10) trans-3-oxo-N-(1-phenyl-4-pyrazolyl)spiro[4-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (11) trans-N-[1-(2-fluorophenyl)-3-pyrazolyl]-3-oxospiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (12) trans-3-oxo-N-(1-phenyl-3-pyrazolyl)spiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide; and
- (13) trans-3-oxo-N-(2-phenyl-1,2,3-triazol-4-yl)spiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;

and pharmaceutically acceptable salts and esters thereof; and

- (b) a prophylactically effective amount of a Mc4r agonist selected from the group consisting of:
- (1) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chloro phenyl]-N-methylcarboxamide;

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(2) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluoro-phenyl]-N-methylcarboxamide;

- (3) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-methyl-phenyl]-N-methylcarboxamide;
- (4) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-phenyl]-N-methylcarboxamide;
- (5) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-4-methyl-phenyl]-N-methylcarboxamide;
- (6) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-4-fluoro-phenyl]-N-methylcarboxamide;
- (7) 4-[2-(2-azetidin-1-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (8) 4-[2-(2-azetidin-1-yl-1(R)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (9) 4-[2-(2-azetidin-1-yl-1,1-dimethyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (10) 4-[2-(2-azetidin-1-yl-1-cyclopropyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (11) 4-[2-(2-azetidin-1-yl-1,1-dimethyl-2-oxoethyl)-4-fluorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (12) 4-[2-(2-azetidin-1-yl-1-cyclopropyl-2-oxoethyl)-4-fluorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (13) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}acetamide;
- (14) N- $\{(1R)-1-[2-(1-\{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl\}$ piperidin-4-yl)-5-chlorophenyl]ethyl $\}$ acetamide;
- (15) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]-1-methylethyl}acetamide;
- (16) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}acetamide;
- (17) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}cyclobutanecarboxamide;
- (18) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}propanamide;

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- (19) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}-*N*-methylurea;
- (20) Methyl-2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]-2-methylpropanoate;
- (21) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]-1-methylethyl}acetamide;
- (22) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}-*N*-methylurea;
- (23) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}cyclobutanecarboxamide;
- (24) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}propanamide;
- (25) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}acetamide;
- (26) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]propyl}acetamide; and
- (27) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}pyrimidine-5-carboxamide; and pharmaceutically acceptable salts thereof.
- 35. (currently amended) <u>A</u> The method of treating a subject having a disorder associated with excessive food intake comprising administration of (a) a therapeutically effective amount of a NPY5 antagonist selected from the group consisting of:
- (1) 3-oxo-N-(5-phenyl-2-pyrazinyl)-spiro[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (2) 3-oxo-N-(7-trifluoromethylpyrido[3,2-b]pyridin-2-yl)spiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (3) N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro-[isobenzofuran-1(3H),4'-piperidine]-1'-carboxamide;
- (4) trans-3'-oxo-N-(5-phenyl-2-pyrimidinyl)spiro[cyclohexane-1,1'(3'H)-isobenzofuran]-4-carboxamide;
- (5) trans-3'-oxo-N-[1-(3-quinolyl)-4-imidazolyl]spiro[cyclohexane-1,1'(3'H)-isobenzofuran]-4-carboxamide;

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(6) trans-3-oxo-N-(5-phenyl-2-pyrazinyl)spiro[4-azaiso-benzofuran- 1(3H),1'-cyclohexane]-4'-carboxamide;

- (7) trans-N-[5-(3-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (8) trans-N-[5-(2-fluorophenyl)-2-pyrimidinyl]-3-oxospiro[5-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (9) trans-N-[1-(3,5-difluorophenyl)-4-imidazolyl]-3-oxospiro[7-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (10) trans-3-oxo-N-(1-phenyl-4-pyrazolyl)spiro[4-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (11) trans-N-[1-(2-fluorophenyl)-3-pyrazolyl]-3-oxospiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide;
- (12) trans-3-oxo-N-(1-phenyl-3-pyrazolyl)spiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide; and
- (13) trans-3-oxo-N-(2-phenyl-1,2,3-triazol-4-yl)spiro[6-azaisobenzofuran-1(3H),1'-cyclohexane]-4'-carboxamide; and pharmaceutically acceptable salts and esters thereof; and (b) a therapeutically effective amount of a Mc4r agonist selected from the group consisting of:
- (1) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chloro phenyl]-N-methylcarboxamide;
- (2) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluoro-phenyl]-N-methylcarboxamide;
- (3) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-methyl-phenyl]-N-methylcarboxamide;
- (4) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-phenyl]-N-methylcarboxamide;
- (5) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-4-methyl-phenyl]-N-methylcarboxamide;
- (6) 2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl) pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-4-fluoro-phenyl]-N-methylcarboxamide;
- (7) 4-[2-(2-azetidin-1-yl-1(S)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;

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(8) 4-[2-(2-azetidin-1-yl-1(R)-methyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;

- (9) 4-[2-(2-azetidin-1-yl-1,1-dimethyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (10) 4-[2-(2-azetidin-1-yl-1-cyclopropyl-2-oxoethyl)-4-chlorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (11) 4-[2-(2-azetidin-1-yl-1,1-dimethyl-2-oxoethyl)-4-fluorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (12) 4-[2-(2-azetidin-1-yl-1-cyclopropyl-2-oxoethyl)-4-fluorophenyl]-1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidine;
- (13) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}acetamide;
- (14) N-{(1R)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}acetamide;
- (15) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]-1-methylethyl}acetamide;
- (16) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}acetamide;
- (17) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}cyclobutanecarboxamide;
- (18) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}propanamide;
- (19) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}-*N*-methylurea;
- (20) Methyl-2-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]-2-methylpropanoate;
- (21) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]-1-methylethyl}acetamide;
- (22) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}-*N*-methylurea;
- (23) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}cyclobutanecarboxamide;
- (24) N-{1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluoro-phenyl)pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}propanamide;

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(25) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-fluorophenyl]ethyl}acetamide;

- (26) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]propyl}acetamide; and
- (27) N-{(1S)-1-[2-(1-{[(3S,4R)-1-tert-butyl-4-(2,4-difluorophenyl)-pyrrolidin-3-yl]carbonyl}piperidin-4-yl)-5-chlorophenyl]ethyl}pyrimidine-5-carboxamide; and pharmaceutically acceptable salts thereof; to a subject in need of such treatment.
- 36. (currently amended) The method according to Claim 35 wherein the disorder associated with excessive food intake is <u>selected from</u> obesity <u>and an obesity-related disorder</u>.

37. (cancelled)

- 38. (currently amended) The method according to Claim 37 36 wherein the obesity-related disorder is selected from: overeating; bulimia; hypertension; diabetes, elevated plasma insulin concentrations; insulin resistance; dyslipidemia; hyperlipidemia; endometrial, breast, prostate and colon cancer; osteoarthritis; obstructive sleep apnea; cholelithiasis; gallstones; coronary heart disease; abnormal heart rhythms; heart arrythmias; myocardial infarction; polycystic ovarian disease; craniopharyngioma; the Prader-Willi Syndrome; Frohlich's syndrome; GH-deficient subjects; normal variant short stature; Turner's syndrome; and acute lymphoblastic leukemia.
- 39. (original) The method according to Claim 38 wherein the obesity-related disorder is diabetes.
 - 40. (cancelled)
 - 41. (cancelled)
 - 42. (cancelled)
 - 43. (cancelled)
 - 44. (cancelled)
 - 45. (cancelled)
 - 46. (cancelled)

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47. (currently amended) A kit comprising at least one unit dosage of a prophylactically or therapeutically effective amount of a NPY5 antagonist of Formula I or II,

$$\begin{array}{c|c}
 & H \\
 & N \\$$

and pharmaceutically acceptable salts and esters thereof, and at least one unit dosage of a prophylactically or therapeutically effective amount of an anti-obesity agent, and pharmaceutically acceptable salts and esters thereof.

48. (original) A method of maintaining weight loss in a subject comprising administration of

(a) a therapeutically effective amount of a NPY5 antagonist of Formula I or II:

and pharmaceutically acceptable salts and esters thereof, wherein Arl is selected from the group consisting of:

- (1) aryl, and
- (2) heteroaryl,

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wherein the aryl and heteroaryl groups are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) nitro,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) cyclo(lower)alkyl,
- (g) lower alkenyl,
- (h) lower alkoxy,
- (i) halo(lower)alkoxy,
- (j) lower alkylthio,
- (k) carboxyl,
- (l) lower alkanoyl,
- (m) lower alkoxycarbonyl,
- (n) lower alkylene optionally substituted with oxo, and
- (o) $-Q-Ar^2$;

Ar² is selected from the group consisting of

- (1) aryl, and
- (2) heteroaryl,

wherein aryl and heteroaryl are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) cyano,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- (e) hydroxy(lower)alkyl,
- (f) hydroxy,
- (g) lower alkoxy,
- (h) halo(lower)alkoxy,
- (i) lower alkylamino,
- (j) di-lower alkylamino,
- (k) lower alkanoyl, and
- (l) aryl;

n is 0 or 1;

Q is selected from the group consisting of a single bond or carbonyl;

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T, U, V and W are each independently selected from the group consisting of Page No.: 32

- nitrogen, and (1)
- (2) methine,

wherein the methine group is unsubstituted or optionally substituted with a substituent selected from the group consisting of

- (a) halogen,
- (b) lower alkyl,
- hydroxy, and
- (d) lower alkoxy, and

wherein at least two of T, U, V, and W are methine;

X is selected from the group consisting of

- (1) nitrogen, and
- methine; and (2)

Y is selected from the group consisting of

- **(1)** imino, unsubstituted or optionally substituted with lower alkyl, and
- (2) oxygen; and
- (b) a therapeutically effective amount of an anti-obesity agent selected from the group consisting of:
 - (1) 5HT transporter inhibitor;
 - (2) NE transporter inhibitor;
 - CB-1 antagonist/inverse agonist; (3)
 - Ghrelin antagonist; (4)
 - H3 antagonist/inverse agonist; (5)
 - (6) MCH1R antagonist;
 - MCH2R agonist/antagonist; (7)
 - (8) NPY1 antagonist;
 - (9) leptin;
 - leptin derivatives; (10)
 - (11)opioid antagonist;
 - (12)orexin antagonist;
 - (13)BRS3 agonist;
 - (14)CCK-A agonist;
 - (15)CNTF;
 - CNTF derivatives; (16)
 - (17)GHS agonist;
 - 5HT2C agonist; (18)

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(19) monoamine reuptake inhibitor;

- (20) UCP-1, 2, and 3 activator;
- (21) β 3 agonist;
- (22) thyroid hormone β agonist;
- (23) PDE inhibitor;
- (24) FAS inhibitor;
- (25) DGAT1 inhibitor;
- (26) DGAT2 inhibitor;
- (27) ACC2 inhibitor;
- (28) glucocorticoid antagonist;
- (29) acyl-estrogens;
- (30) lipase inhibitor;
- (31) fatty acid transporter inhibitor;
- (32) dicarboxylate transporter inhibitor;
- (33) glucose transporter inhibitor;
- (34) serotonin reuptake inhibitors;
- (35) metformin;
- (36) topiramate;
- (37) zonisamide;
- (38) aminorex;
- (39) amphechloral;
- (40) amphetamine;
- (41) benzphetamine;
- (42) chlorphentermine;
- (43) clobenzorex;
- (44) cloforex;
- (45) clominorex;
- (46) clortermine;
- (47) cyclexedrine;
- (48) dexfenfluramine;
- (49) dextroamphetamine;
- (50) diethylpropion;
- (51) diphemethoxidine,
- (52) N-ethylamphetamine;
- (53) fenbutrazate;

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(54) fenfluramine;

(55) fenisorex;

(56) fenproporex;

(57) fludorex;

(58) fluminorex;

(59) furfurylmethylamphetamine;

(60) levamfetamine;

(61) levophacetoperane;

(62) mazindol;

(63) mefenorex;

(64) metamfepramone;

(65) methamphetamine;

(66) norpseudoephedrine;

(67) pentorex;

(68) phendimetrazine;

(69) phenmetrazine;

(70) phentermine;

(71) phenylpropanolamine; and

(72) picilorex;

and pharmaceutically acceptable salts and esters thereof; to a subject in need of such treatment.

49. (original) A composition comprising

(a) a NPY5 antagonist of formula I or II

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and pharmaceutically acceptable salts and esters thereof, wherein Ar¹ is selected from the group consisting of:

- (1) aryl, and
- (2) heteroaryl,

wherein the aryl and heteroaryl groups are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- halogen, (a)
- (b) nitro,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- hydroxy(lower)alkyl, (e)
- (f) cyclo(lower)alkyl,
- (g) lower alkenyl,
- (h) lower alkoxy,
- (i) halo(lower)alkoxy,
- (j) lower alkylthio,
- (k) carboxyl,
- (l) lower alkanoyl,
- (m) lower alkoxycarbonyl,
- lower alkylene optionally substituted with oxo, and (n)
- -Q-Ar²; (o)

Ar² is selected from the group consisting of

- aryl, and (1)
- (2) heteroaryl,

wherein aryl and heteroaryl are unsubstituted or optionally substituted with a substituent selected from the group consisting of:

- (a) halogen,
- (b) cyano,
- (c) lower alkyl,
- (d) halo(lower)alkyl,
- hydroxy(lower)alkyl, (e)
- (f) hydroxy,
- lower alkoxy, (g)
- (h) halo(lower)alkoxy,
- lower alkylamino, (i)
- di-lower alkylamino, (j)

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(k) lower alkanoyl, and

(l) aryl;

n is 0 or 1;

Q is selected from the group consisting of a single bond or carbonyl;

- T, U, V and W are each independently selected from the group consisting of
 - (1) nitrogen, and
 - (2) methine, wherein the methine group is unsubstituted or optionally substituted with a substituent selected from the group consisting of
 - (a) halogen,
 - (b) lower alkyl,
 - (c) hydroxy, and
- (d) lower alkoxy, and wherein at least two of T, U, V, and W are methine; X is selected from the group consisting of
 - (1) nitrogen, and
 - (2) methine; and

Y is selected from the group consisting of

- (1) imino, unsubstituted or optionally substituted with lower alkyl, and
- (2) oxygen; and
- (b) an anti-obesity agent selected from the group consisting of: zonisamide, and pharmaceutically acceptable salts and esters thereof.
- 50. (original) A method of treating a subject having a disorder associated with excessive food intake comprising administration of the composition of Claim 49 to a subject in need thereof.
- 51. (currently amended) The method according to Claim 50 wherein the disorder associated with excessive food intake is selected from obesity and an obesity-related disorder selected from: overeating; bulimia; hypertension; diabetes, elevated plasma insulin concentrations; insulin resistance; dyslipidemia; hyperlipidemia; endometrial, breast, prostate and colon cancer; osteoarthritis; obstructive sleep apnea; cholelithiasis; gallstones; coronary heart disease; abnormal heart rhythms; heart arrythmias; myocardial infarction; polycystic ovarian disease; craniopharyngioma; the Prader-Willi Syndrome; Frohlich's syndrome; GH-deficient subjects; normal variant short stature; Turner's syndrome; and acute lymphoblastic leukemia.
 - 52. (cancelled)

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53. (cancelled)

54. (cancelled)

55. (original) A method of preventing obesity in a subject at risk for obesity comprising administration of the composition of claim 49 to said subject.